

SCA Milam  
Saint Clair County  
LPC 1630450001  
ILT 180014961  
SF/HRS

# CERCLA

## ~~Combined Assessment Report~~

E&I

US EPA RECORDS CENTER REGION 5



412231



CERCLA  
~~COMBINED ASSESSMENT REPORT~~  
*ESTg6*

for:

**SCA MILAM LANDFILL**  
**Fairmont City, Illinois**  
ILT 180014961  
LPC 1630450001

PREPARED BY:  
ILLINOIS ENVIRONMENTAL PROTECTION AGENCY  
BUREAU OF LAND  
DIVISION OF REMEDIATION MANAGEMENT  
OFFICE OF SITE EVALUATION

August 18, 2003

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## Section 1.0 Introduction

On September 30, 1999 the Illinois Environmental Protection Agency's Office of Site Evaluation was tasked by Region V, of the United States Environmental Protection Agency (U.S. EPA) to conduct a ~~Combined Assessment~~ <sup>EST</sup> (CA) of the SCA Milam Landfill (ILT180014961 / LPC 1630450001) in Saint Clair County, Illinois (see Figure 1, Site Location Map). The CA is performed under the authority of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) commonly known as Superfund. The SCA Milam Landfill was placed on the Comprehensive Environmental Response, Compensation, and Liability Act Information System (CERCLIS) in April of 1979. SCA Milam is an active landfill that began operations in the early 1960's. (The site history section of this report contains more detailed information on site operations.) The Preliminary Assessment (PA) was conducted in January of 1983, and a Screening Site Inspection (SSI) in September of 1984.

The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) (40 CFR Part 300) requires a Preliminary Assessment (PA) be performed on all sites entered into the Comprehensive Environment Response, Compensation, and Liability System (CERCLIS). If a detailed Site Inspection (SI) is considered necessary, and if site conditions warrant, the Combined Assessment is intended to:

- 1) Eliminate from consideration those sites that pose no threat to public health or the environment;
- 2) Determine the potential need for a removal action;
- 3) Set priorities for future investigations;
- 4) Gather existing or additional data to facilitate later components of the site assessment process.

The Combined Assessments integrates PA/SI activities typically performed during the PA (information gathering, site reconnaissance) with activities typically performed during the SI (review of data, development of field work plans, field sampling, filling data gaps) to achieve one

continuous site evaluation.

If the determination is made that the site is NPL caliber, additional data will likely be needed to complete the assessment. A sampling plan to accommodate removal and site assessment needs, as well as initial remedial needs will be developed. The need for site sampling will be based on a reasonable understanding of the site in order to assure that adequate data will be collected for the removal assessment and the preparation of the Hazard Ranking System (HRS) score. The need for the initial sampling for the remedial investigation will also be considered. Upon completion of the data gathering, there will be a determination of whether the site should be forwarded within the Superfund process, either through the remedial or removal programs. Based on the preliminary HRS score and removal program information, the site will then either be designated as No Further Action (NFA), or carried forward as an NPL listing candidate.

The Combined Assessment will address all the data requirements of the revised HRS using field screening and NPL level Data Quality Objectives (DQO's) prior to data collection. It will also provide data in a format to support remedial investigation work plan development. Only sites that appear to score high enough for NPL consideration and have not been deferred to another authority will move to an Expanded Site Inspection (ESI).

## **Section 2.0 Site Background**

### **Section 2.1 Site Description**

The SCA Milam site is located in the northwest corner of the intersection of Interstate 55 and Route 203 just north of Gateway International Speedway, Fairmont City, Saint Clair County, Illinois. The original area was approximately 25 acres in size and has been expanded to 600 acres in total acres. The site is bordered to the east by Interstate 55, to the south, and west by Route 203, and to the north by the Cahokia Canal (see Figure 2, Site Area Map). Currently, SCA Milam is an actively permitted landfill with a leachate collection system and 27 monitoring wells. The closed areas of the site are well vegetated and have no signs of erosion or leachate seeps.

## Section 2.2 Site History

Site operation began some time in the early 1960's and prior to that it was a rural undeveloped area. The landfill has had a variety of operators. Currently, it is owned and operated by Waste Management Incorporated of Illinois. Fires and explosions were reported at the site in 1973 and 1974. In 1974, the Illinois Environmental Protection Agency (IEPA) documented an observed release to groundwater and surface water at the site. In 1981, SCA Milam also known as SCA Services notified U.S.EPA that they had received approximately 50,000 gallons of hazardous waste in 1977 and 1978. The hazardous waste was reportedly placed in drums, below ground, near the Cahokia Creek. In 1984, Ecology and Environment conducted an SSI at the landfill and collected a limited number of sediment and groundwater samples. As a result of this SSI the site was given a high priority rating status.

In the mid-1980's SCA entered into a consent decree with IEPA and were required to submit a plan to remove the drums and contaminants in their special waste area (drum disposal area). According to the current site manager this has been accomplished and a removal was performed in the early 1990's (see Appendix D). Later this special waste area was permitted by the Illinois Environment Protection Agency ( Illinois EPA) to receive additional solid wastes and the Cahokia Creek was diverted around the northern perimeter of the site through a series of wetland areas.

To date the site is fully permitted by the Illinois EPA and according to a May 2000 inspection, has no notable violations.

## **Section 2.3 Regulatory Status**

This section addresses any other EPA programs that may be associated with the SCA Milam Landfill. Given the nature of the operations it is unlikely that the site was or is subject to the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), the Atomic Energy Act (AEA), or the Uranium Mill Tailings Radiation Control Act (UMTRCA).

## **Section 3.0 <sup>EST</sup> Combined Assessment Activities**

### **Section 3.1 Sampling Activities**

#### **Section 3.1.1 Site Reconnaissance**

A site reconnaissance of the SCA Milam Landfill was conducted in May of 2000, when the author met with the current site manager for Waste Management, Mr. Ernest Dennison. During the reconnaissance the author drove around the perimeter of the expanded 600 acre site. As stated earlier the original course of the Cahokia Creek was altered to accommodate the expansion of the original fill area. Two drainage culverts were note along interstate 55, that potentially could have been the original creek bed. Flow from the creek is now directed around the northern perimeter of the site through a series of wetlands (see Appendix B). These wetlands ultimately flow back into the Cahokia Canal several hundred feet northeast of the original point where the Cahokia Creek originally emptied into the Cahokia Canal. The general area of the former Cahokia Creek drum disposal area was located but current site conditions prohibit any visual evaluation of it. It was also noted that it appeared that the Cahokia Canal had been recently dredged. This dredging is done in order to keep the canal free of silt and vegetation. Overall the site was well vegetated

and had no signs of leachate seeps or exposed refuse.

In April of 2000, the author of this report contacted the original Illinois EPA inspector, Mr. Ken Mensing, for the site. Mr. Mensing also thought that the drum disposal area was the reason the landfill was originally referred to the Comprehensive Environmental Response Compensation Liability Act (CERCLA) program.

As stated earlier, in May of 2000, the author also met with the current site manager to discuss the rationale for the CA inspection. The Cahokia Creek drum disposal area was the focus of the interview with the site manager. The site manager produced a June 1994, Barrel Area Remediation Project report that was submitted to the Permits Section of IEPA, in 1994. The applicable parts of that report can be found in Appendix D, of this report. The remediation project was one of many requirements set by IEPA, for the landfill to expand the original fill area. Ultimately the drum disposal area received several feet of solid waste and is currently covered in accordance with the landfill's IEPA permit.

### **Section 3.1.2 Field Sampling**

The CERCLA Inspection field sampling activities took place on June 27, and 28, 2000. Three on site monitoring wells and eight sediment samples were collected in accordance with the Illinois EPA sampling methods and procedures. The samples were collected to determine if contaminants from the drum disposal area had impacted the local groundwater and nearby Cahokia Canal. Figure 3, identifies the sample locations from the June 2000 CA, and the

analytical results are summarized in Table 1A, Inorganic Groundwater, Table 1B, Organic Groundwater, Table 2A, Inorganic Sediment, Table 2B, Organic Sediment, sample descriptions are located in Table 3, Sample Descriptions, and sample photographs are located in Appendix E. All of the June 2000 samples were analyzed by a USEPA contract laboratory through the Contract Laboratory Program (CLP).

### **Section 3.2 Analytical Results**

The sediment samples collected during the sampling event were compared to two background sediment samples. The background samples were collected from the Cahokia Creek and Cahokia Canal to establish background levels for these water routes before they are impacted by the landfill. None of the sediment samples had levels that were significantly above the background levels established for the canal or creek.

## **Section 4.0 Site Sources**

### **Section 4.1 Drum Disposal Area**

The Cahokia Creek drum disposal area was the focus of this CERCLA investigation. Since the September 1984, Screening Site Inspection, a drum removal has taken place in this area. This activity included the removal of 3,254 waste-bearing drums and 253 RCRA empty drums, and approximately 5,400 cubic yards of soil, trash, and debris from the drum disposal area. The removal area was then covered with 18 inches of clay and then incorporated into the main fill area.

## **Section 5.0 Migration Pathways**

The Office of Site Evaluation identifies three migration and one exposure pathway, as identified in CERCLA's Hazard Ranking System, by which hazardous substances may pose a threat to human health and/or the environment. Consequently, sites are evaluated on their known or potential impact to these pathways. The pathways evaluated are: groundwater migration, surface water migration, soil exposure, and air migration.

### **Section 5.1 Groundwater**

The site is situated in the Mississippi River Valley and this portion of the valley is referred to as the American Bottoms. The major water-bearing aquifer for this region consists primarily of coarse- sand-and-gravel deposits. Groundwater flow in this formation generally is westward toward the Mississippi River. Groundwater usage of this aquifer is limited mostly to industrial wells with the exception of an Illinois Department of Transportation well, located approximately 1.0 mile to the north and a Madison High School well located approximately 1.75 to the northwest of the site. No private wells were located within the four-mile target distance limit (TDL) by the author. The IEPA Collinsville regional office was also unaware of any private wells in this area. The lower bedrock aquifer in this area is not used for two reasons, the upper sand-and-gravel aquifer is a high yielding aquifer, and the lower bedrock aquifer tends to be highly mineralized.

### **Geology**

In the American Bottoms, the Mississippi River has deeply eroded its valley through the Quaternary-age glacial succession of the uplands and into the Paleozoic bedrock, then backfilled

the valley with predominantly sand-and-gravel glacial outwash that is overlain by fine-grained clay and silt alluvium. This sequence of Quaternary-age outwash and alluvium is up to 170 feet thick in the American Bottoms, but varies depending on how deeply the Mississippi River formerly eroded into the bedrock surface. In northwestern St. Clair County near the SCA Milam Landfill, the Quaternary-age deposits are approximately 120 feet thick.

The surface topography of the American Bottoms consists of several different alluvial terrace levels, and the SCA Milam Landfill is located on the lowest level in the valley. The underlying sediments typically consist of alluvium 15 to 30 feet thick composed predominantly of silt and clay with some fine sand overlying a variable succession of poorly graded to well grade outwash sands and gravels.

## **Section 5.2 Surface Water**

The surface water pathway starts where run-off from the site enters the first perennial water way. This location is referred to as the probable point of entry (PPE). The PPE for the former drum disposal area at the SCA Milam Landfill is located at the point where the Cahokia Creek originally emptied into the Cahokia Canal (see Appendix A). As mentioned earlier the path of the creek has been altered to accommodate the northeast expansion of the fill area. The creek has been re-directed and now flows through a series of wetlands around the northeastern perimeter of the landfill into the Cahokia Canal north of the original PPE. This entire area is up gradient of the drum disposal area and contamination from this area would not migrate to these wetlands.



The 15 mile Target Distance Limit (TDL), starts at the PPE and continues 15 miles downstream of that point. For this site the first three miles of the 15 mile TDL, are located along the Cahokia Canal and the remaining 12 miles are along the Mississippi River. In the first three miles of this distance there are numerous wetlands contiguous to the canal (see Appendix B). Due to the channel like construction and frequent dredging of the canal, the first wetland area that potentially receives run-off from the site is located approximately 1.25 miles down stream of the PPE. According to the National Wetlands Inventory they are palustrine emergent, temporarily flooded, partially drained/ditched, wetlands.

### **Section 5.3 Soil Exposure**

The soil exposure pathway looks at contaminants in the upper two feet of the grounds surface. The drum disposal area after being remediated was covered with 18 inches of clay and developed as part of the main fill area. At the time of closure this area received an additional two feet of clay cover material and six inches of rooting material. No soil samples or boring were taken from this area.

According to the Soil Conservation Service, soils in this area are characterized as narrow ridge tops that have been widened and are in trees and grasses. This area was mined prior to the passage of the present Illinois reclamation act and did not receive any systematic reclamation. The soil types are primarily silt loam and silty clay loam and are neutral to slightly acid.

## **Section 5.4 Air Route**

Air samples were not collected during the CA. Current conditions have remedied the potential for particulate releases and the landfill has an extensive methane collection system that utilizes this gas to generate electricity.

## **Section 6.0 Additional Risk-Based Objectives**

The sediment samples collected during the sampling event were compared to ecological benchmarks to help determine whether site activities have impacted the surface water pathway. Two sources of benchmarks were used for this comparison: Ontario sediment quality guidelines and U.S. EPA ecotox thresholds. Ontario sediment quality guidelines are non-regulatory ecological benchmark values that serve as indicators of potential aquatic impacts. Levels of contaminants below Ontario benchmarks indicate a level of pollution that has no effect on the majority of the sediment dwelling organisms. Contaminants for which no Ontario benchmarks were available were compared to U.S. EPA ecotox thresholds. Ecotox thresholds are ecological benchmarks above which there is sufficient concern regarding adverse ecological effects to warrant further site investigation. Ecotox thresholds are to be used for screening purposes and are not regulatory criteria, site-specific cleanup standards or remediation goals. The sediment samples from this inspection slightly exceeded the following ecotox thresholds for: cadmium 0.6 ppm, copper 16.0 ppm, and lead 31.0 ppm. The highest corresponding values were, cadmium 0.89 ppm, copper 43.7 ppm, and lead 127 ppm.



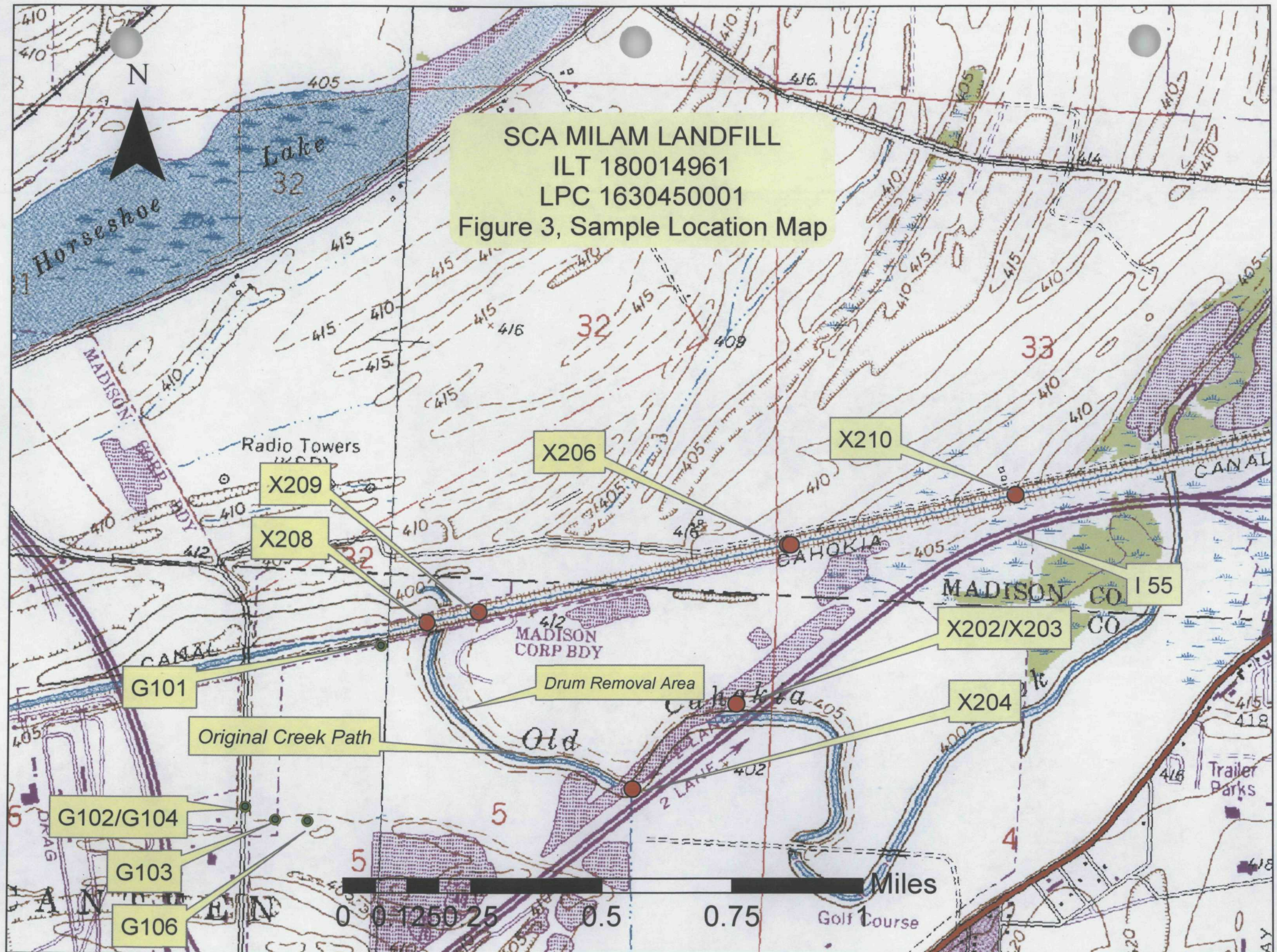
SITE LOCATION MAP  
Figure 1.





SITE LOCATION MAP  
Figure 2.







## TABLE 1A, INORGANIC GROUNDWATER

## Analytical Results (Qualified Data)

Case #: 28230

SDG : ME005B

Site :

SCA MILAM, ILT 180014961, LPC 1630450001

Lab. :

CHEM

Date 6/2000

Sample Number :	ME005B	ME005C	ME005D	ME005E	ME005F	ME005G
Sampling Location	G101	G102	G103	G104	G105	G106
Matrix :	Water	Water	Water	Water	Water	Water
Units :	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Date Sampled :	06/28/2000	06/28/2000	06/28/2000	06/28/2000	06/28/2000	06/28/2000
Dilution Factor :	1.0	1.0	1.0	1.0	1.0	1.0
ANALYTE	Result	Flag	Result	Flag	Result	Flag
ALUMINUM	39.2	J	39.9	J	22.5	J
ARSENIC	20.9	J	33.4	J	10.8	J
BARIUM	1750		162		227	
CALCIUM	251000		119000		133000	
COBALT	3.8		1.7	U	1.7	U
COPPER	18.7		20.2		9.9	
IRON	37400		21400		19600	
MAGNESIUM	92900		38000		36800	
MANGANESE	337		868		459	
MERCURY	0.10	U	0.10	U	0.10	U
NICKEL	43.3		5.2		2.5	
POTASSIUM	43100	J	10900	J	10600	J
SODIUM	520000	J	50800	J	50800	J
VANADIUM	2.0		1.4	U	1.4	U
ZINC	23.8		21.7		25.4	

TABLE 1B, ORGANIC GROUNDWATER  
Analytical Results (Qualified Data)

Case #: 28230

SDG : E0052

Site :

SCA MILAM, ILT 180014961, LPC 1630450001

Lab. :

CEIMIC

Date 6/2000

Sample Number :	E005B		E005C		E005D		E005E		E005F		E005G	
Sampling Location :	G101		G102		G103		G104		G105		G106	
Matrix :	Water		Water		Water		Water		Water		Water	
Units :	ug/L		ug/L		ug/L		ug/L		ug/L		ug/L	
Date Sampled :	06/28/2000		06/28/2000		06/28/2000		06/28/2000		06/28/2000		06/28/2000	
Dilution Factor :	1.0		1.0		1.0		1.0		1.0		1.0	
Volatile Compound	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
Vinyl Chloride	10	U	10	U	4	J	10	U	10	U	10	U
Carbon Disulfide	4	J	10	U	10	U	10	U	10	U	10	U
1,1-Dichloroethane	10	U	10	U	8	J	10	U	20		10	U
cis-1,2-Dichloroethene	2	J	10	U	18		1	J	34		10	U
Benzene	4	J	10	U	10	U	10	U	10	U	10	U
Tetrachloroethene	10	U	10	U	10	U	6	J	10	U	10	U
Pesticide Compound												
alpha-Chlordane	2.5	UJ	3.1	U	3.2	U	4.0	UJ	2.5	UJ	2.5	

## TABLE 2A, INORGANIC SEDIMENT

Analytical Results (Qualified Data)

Case #: 28230

SDG : ME005B

Site :

SCA MILAM, ILT 180014961, LPC 1630450001

Lab. :

CHEM

Date 6/2000

Sample Number :	ME005A		ME0052		ME0053		ME0054		ME0056		ME0057		ME0058		ME0059	
Sampling Location	X210		X202		X203		X204		X206		X207		X208		X209	
Matrix :	Soil		Soil		Soil		Soil		Soil		Soil		Soil		Soil	
Units :	mg/Kg		mg/Kg		mg/Kg		mg/Kg		mg/Kg		mg/Kg		mg/Kg		mg/Kg	
%Solids :	63.1		49.8		46.7		45.8		76.7		70.5		74.0		65.6	
Dilution Factor :	1.0		1.0		1.0		1.0		1.0		1.0		1.0		1.0	
ANALYTE	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
ALUMINUM	6510		12000		9490		9920		4290		3920		6690		6780	
ARSENIC	8.3	J	8.0	J	8.1	J	18.4	J	6.3	J	9.7	J	7.2	J	9.4	J
BARIUM	212		211		180		228		374		444		292		501	
BERYLLIUM	0.22	J	0.61	J	0.55	J	0.44	J	0.090	J	0.33	J	0.25	J	0.33	J
CADMIUM	0.16	U	4.3		5.7		33.2		0.51	J	0.16	J	0.51	J	0.89	
CALCIUM	14000		12400		11400		8100		4730		12700		23100		36200	
CHROMIUM	11.6		18.6		14.5		20.8		7.4		8.7		12.9		21.5	
COBALT	7.4		8.7		7.4		7.2		5.4		5.0		5.9		7.3	
COPPER	19.8		29.1		26.6		48.9		11.6		15.6		22.1		43.7	
IRON	15300		22200		18600		18900		10400		15400		13900		15100	
LEAD	21.3		48.6		39.4		134		21.2		27.3		55.5		127	
MAGNESIUM	6800		5170		4410		3490		2790		4260		5680		6830	
MANGANESE	593	J	641	J	631	J	399	J	723	J	177	J	613	J	758	J
MERCURY	0.08	U	0.10	U	0.11	U	1.5		0.070	U	0.070	U	0.080		0.12	
NICKEL	16.4	J	23.1	J	20.1	J	19.3	J	10.9	J	13.0	J	14.3	J	17.3	J
POTASSIUM	785		2130		1710		1410		509		779		893		1040	
SILVER	0.56	U	0.71	U	0.76	U	1.4		0.46	U	0.51	U	0.48	U	0.57	
SODIUM	229		393		365		523		137		247		420		811	
VANADIUM	20.9		28.3		23.5		27.7		14		14.6		19.3		22.9	
ZINC	117	J	411	J	408	J	782	J	199	J	124	J	168	J	195	J
CYANIDE	6.1		0.42	R	0.45	U	0.45	UJ	0.27	U	0.29	U	0.28	U	0.32	R



TABLE 2B, ORGANIC SEDIMENT  
Analytical Results (Qualified Data)

Case #: 28230

SDG : E0052

Site :

SCA MILAM, ILT 180014961, LPC 1630450001

Lab. :

CEIMIC

Date 6/2000

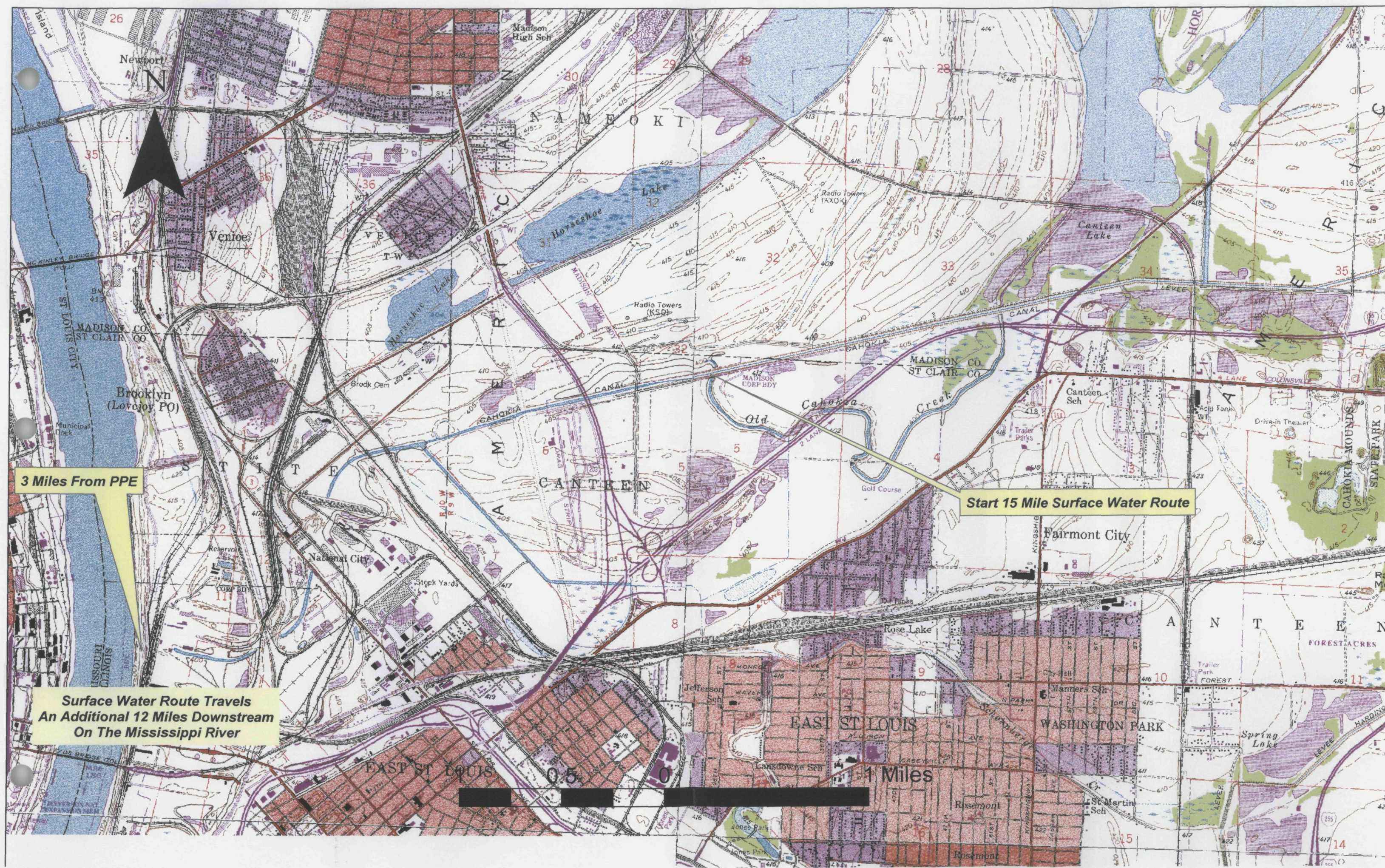
Sample Number :	E005A	E0052	E0053	E0054	E0056	E0057	E0058	E0059
Sampling Location :	X210	X202	X203	X204	X206	X207	X208	X209
Units :	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg
Volatile Compound	Result	Flag	Result	Flag	Result	Flag	Result	Flag
Trichlorofluoromethane	15	U	16	U	14	U	13	U
2-Butanone	15	U	9	J	5	J	16	U
Semivolatile Compound	Result	Flag	Result	Flag	Result	Flag	Result	Flag
Naphthalene	480	U	590	U	620	U	7600	U
2-Methylnaphthalene	51	J	590	U	620	U	7600	U
4-Nitrophenol	1200	UJ	1500	UJ	1600	U	19000	U
Dibenzofuran	480	U	590	U	620	U	7600	U
Diethylphthalate	210	J	590	U	620	U	7600	U
Phenanthrene	82	J	590	U	620	U	7600	U
Anthracene	480	U	590	U	620	U	7600	U
Fluoranthene	68	J	590	U	620	U	7600	U
Pyrene	75	J	590	U	620	U	7600	U
Benzo(a)anthracene	480	U	590	U	620	U	7600	U
Chrysene	53	J	590	U	620	U	7600	U
bis(2-Ethylhexyl)phthalate	3500		590	U	620	U	7600	U
Benzo(b)fluoranthene	480	U	590	U	620	U	7600	U
Benzo(k)fluoranthene	480	U	590	U	620	U	7600	U
Benzo(a)pyrene	480	U	590	U	620	U	7600	U
Indeno(1,2,3-cd)pyrene	480	U	590	U	620	UJ	7600	UJ
Dibenzo(a,h)anthracene	480	U	590	U	620	U	7600	U
Benzo(g,h,i)perylene	480	U	590	U	620	UJ	7600	UJ

Table 3, Sample Descriptions  
SCA Milam Landfill  
ILT 180014961 / LPC 1630450001

<i>Sample Date Time</i>	<i>Location</i>	<i>Appearance</i>
G101	Monitoring Well G004	clear no odor
6/28/00		
8:45 AM		
G102	Monitoring Well G002	clear no odor
6/28/00		
9:45 AM		
G103	Monitoring Well G025	clear no odor
6/28/00	Triple Volume	
11:15 AM		
G104	Monitoring Well G17	clear no odor
6/28/00	Duplicate of G105	
1:00 PM		
G105	Monitoring Well G17	clear no odor
6/28/00		
1:00 PM		
G106	Field Blank	
6/28/00		
1/0/00		
X202	northeast drainage onto site	silty-clay
6/27/00	0-6 inches deep	black
1:00 PM		
X203	duplicate of X202	
X204	east drainage onto site	silty-clay
6/27/00	0-6 inches deep	black
1:30 PM		
X206	50 feet down stream of PIPE to Cahokia Canal	silty-clay
6/27/00	0-6 inches deep	some organic material
10:45 AM		
X207	at PPE to Cahokia Canal	silt
6/27/00		dark organic rich
11:00 AM		
X208	down stream on Cahokia Canal	dark clay
6/27/00	at large drainage culvert	rocky with pebbles
9:45 AM		
X209	down stream on Cahokia Canal	clay
6/27/00	near gas plant	with some sand
10:00 AM		
X210	up stream on Cahokia Canal	silt
6/27/00	near bridge	light brown
10:30 AM		

APPENDIX A.  
15-MILE SURFACEWATER  
MAPS





3 Miles From PPE

Surface Water Route Travels  
An Additional 12 Miles Downstream  
On The Mississippi River

Start 15 Mile Surface Water Route

1 Miles



APPENDIX B.  
AREA WETLANDS MAP







APPENDIX C.  
TARGET COMPOUND LIST

# DATA QUALIFIER DEFINITIONS

<u>QUALIFIER</u>	<u>DEFINITION ORGANICS</u>	<u>DEFINITION INORGANICS</u>
U	Indicates that the compound was analyzed for but not detected above the CRQL. The CRQL must be corrected for any dilution and percent moisture.	Indicates that the compound was analyzed for but not detected above the instruments detection limit (IDL).
J	Indicates an estimated value. This flag is used when estimating a concentration for TICs where a 1: 1 response is assumed or when the mass spectral and retention time data indicate the presence of a compound that meets the volatile and semivolatile GC/MS identification criteria, and the result is less than the CRQL but greater than zero or when the retention time data indicate the presence of a compound that meets the pesticide/Aroclor identification criteria and the result is less than the CRQL but greater than zero. Used in data validation when the quality control data indicate that a value may not be accurate.	Indicates an estimated value. Used in data validation when the quality control data indicate that a value may not be accurate.
UJ	The analyte was analyzed for but not detected. The associated value is an estimate and may be inaccurate or imprecise.	The analyte was analyzed for but not detected. The associated value is an estimate and may be inaccurate or imprecise.
R	Rejected data. The QC parameters indicate that the data is not usable for any purpose.	Rejected data. The QC parameters indicate that the data is not usable for any purpose.
C	This flag applies to pesticide results where the identification has been confirmed by GC/MS.	Method qualifier indicates analysis by Manual Spectrophotometry.
CA	Not Used	Method qualifier indicates analysis by Midi-Distillation Spectrophotometry.



CV	Not Used	Method qualifier indicates analysis by Cold Vapor AA.
B	This flag is used when the analyte was found in the associated blank as well as the sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action	The reported value is less than the contract required detection limit (CRDL) and greater than the IDL.
E	This flag identifies compounds whose concentrations exceed the calibration range of the GC/MS instrument for that specific analysis. All extracts containing compounds exceeding the calibration range must be diluted and analyzed again.	The reported value is estimated because of the presence of interference.
D	This flag identifies all compounds identified in an analysis at a secondary dilution factor.	Not Used
P	This flag is for a pesticide/Aroclor target analyte when the percent difference for detected concentrations is greater than 25% between the two columns. The lower of the two values is reported on the Form 1 and flagged with a 'P'.	Method qualifier indicates analysis by Inductively Coupled Plasma (ICP) when hotplate digestion is used.
PM	Not Used	Method qualifier indicates analysis by ICP when microwave digestion is used.
M	Not Used	Duplicate injection precision not met (a QC parameter).
A	This flag indicates that a TIC is a suspected aldol-condensation product formed by the reaction of the solvents used to process the sample in the laboratory.	Method qualifier indicates analysis by Flame Atomic Absorption (AA) when hotplate digestion is used.

AM	Not Used	Method qualifier indicates analysis by Flame AA when microwave digestion is used.
AV	Not Used	Method qualifier indicates analysis by Automated Cold Vapor AA.
AS	Not Used	Method qualifier indicates analysis by Semi-Automated Spectrophotometry.
F	Not Used	Method qualifier indicates analysis by Furnace Atomic Absorption (AA) when hotplate digestion is used.
FM	Not Used	Method qualifier indicates analysis by furnace AA when Microwave Digestion is used.
N	The analysis indicates the presence of an analyte for which there is presumptive evidence to make a "tentative identification". This flag is used only for TICs	Spike sample recovery not within the limits (a QC parameter).
NJ	The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated value represents the approximate concentration.	Not Used
S	Not Used	The reported value was determined by Method of Standard Additions (MSA).
W	Not Used	Post-digestion spike for furnace AA analysis is out of control limits (85-115%), while sample absorbance is less than 50% of spike absorbance (a QC parameter).
.	Not Used	Duplicate analysis not within control limits. (a QC parameter).

+	Not Used	Correlation coefficient for the MSA is less than 0.995 (a QC parameter).
T	Not Used	Method qualifier indicates Titrimetric analysis.
NR	The analyte was not required to be analyzed.	The analyte was not required to be analyzed.

# TARGET COMPOUND LIST

## Volatile Target Compounds

Chloromethane	1,2-Dichloropropane
Bromomethane	cis-1,3-Dichloropropene
Vinyl Chloride	Trichloroethane
Chloroethane	Dibromochloromethane
Methylene Chloride	1,1,2-Trichloroethane
Acetone	Benzene
Carbon Disulfide	trans-1,3-Dichloropropene
1,1-Dichloroethene	Bromoform
1,1-Dichloroethane	4-Methyl-2-pentanone
1,2-Dichloroethane (total)	2-Hexanone
Chloroform	Tetrachloroethane
1,2-Dichloroethane	1,1,2,2-Tetrachloroethane
2-Butanone	Toluene
1,1,1-Trichloroethane	Chlorobenzene
Carbon Tetrachloride	Ethylbenzene
Vinyl Acetate	Styrene
Bromodichloromethane	Xylenes (total)

## Base/Neutral Target Compounds

Hexachloroethane	2,4-Dinitrotoluene
bis(2-Chloroethyl)Ether	Diethylphthalate
Benzyl Alcohol	N-Nitrosodiphenylamine
bis(2-Chloroisopropyl)Ether	Hexachlorobenzene
N-Nitroso-Di-n-Propylamine	Phenanthrene
Nitrobenzene	4-Bromophenyl-phenylether
Hexachlorobutadiene	Anthracene
2-Methylnaphthalene	Di-n-Butylphthalate
1,2,4-Trichlorobenzene	Fluoranthene
Isophorone	Pyrene
Naphthalene	Butylbenzylphthalate
4-Chloroaniline	bis(2-Ethylhexyl)Phthalate
bis(2-Chloroethoxy)Methane	Chrysene
Hexachlorocyclopentadiene	Benzo(a)Anthracene
2-Chloronaphthalene	3,3'-Dichlorobenzidine
2-Nitroaniline	Di-n-Octyl Phthalate
Acenaphthylene	Benzo(b)Fluoranthene
3-Nitroaniline	Benzo(k)Fluoranthene
Acenaphthene	Benzo(a)Pyrene
Dibenzofuran	Indeno(1,2,3-cd)Pyrene
Dimethyl Phthalate	Dibenz(a,h)Anthracene
2,6-Dinitrotoluene	Benzo(g,h,i)Perylene
Fluorene	1,2-Dichlorobenzene
4-Nitroaniline	1,3-Dichlorobenzene
4-Chlorophenyl-phenylether	1,4-Dichlorobenzene

## Acid Target Compounds

Benzoic Acid	2,4,6-Trichlorophenol
Phenol	2,4,5-Trichlorophenol
2-Chlorophenol	4-Chloro-3-methylphenol
2-Nitrophenol	2,4-Dinitrophenol
2-Methylphenol	2-Methyl-4,6-dinitrophenol
2,4-Dimethylphenol	Pentachlorophenol
4-Methylphenol	4-Nitrophenol
2,4-Dichlorophenol	

## Pesticide/PCB Target Compounds

alpha-BHC	Endrin Ketone
beta-BHC	Endosulfan Sulfate
delta-BHC	Methoxychlor
gamma-BHC (Lindane)	alpha-Chlorodane
Heptachlor	gamma-Chlorodane
Aldrin	Toxaphene
Heptachlor epoxide	Aroclor-1016
Endosulfan I	Aroclor-1221
4,4'-DDE	Aroclor-1232
Dieldrin	Aroclor-1242
Endrin	Aroclor-1248
4,4'-DDD	Aroclor-1254
Endosulfan II	Aroclor-1260
4,4'-DDT	

## Inorganic Target Compounds

Aluminum	Manganese
Antimony	Mercury
Arsenic	Nickel
Barium	Potassium
Beryllium	Selenium
Cadmium	Silver
Calcium	Sodium
Chromium	Thallium
Cobalt	Vanadium
Copper	Zinc
Iron	Cyanide
Lead	Sulfide
Magnesium	Sulfate

## SPECIAL PESTICIDE LIST

2,4-D

Atrazine

Metolachlor -- Dual

Cyanazine -- Bladex

Fonofos -- Dyfonate

EPTC -- Eptam, Eradicane

Phorate

Metribuzin -- Lexone, Sencor

Trifluralin -- Treflan

Diazinon

Alachlor -- Lasso

APPENDIX D.  
BARREL AREA REMEDIATION REPORT

**Milam Recycling & Disposal Facility**

170-55 & Route 203

P.O. Box 98

Springfield, Illinois 62060

Phone: 618/271-6788 • Fax: 618/271-0221



A Waste Management Company

June 29, 1994

Mr. Chris Liebman  
Illinois Environmental Protection Agency  
Division of Land Pollution Control - Permit Section # 33  
2200 Churchill Road  
Springfield, Ill 62794

1630450001 - St Clair County  
Milam Recycling and Disposal Facility

Submittal of Final Report on the Barrel Area

Dear Mr. Liebman:

This letter transmits three copies of the Final Report on the Barrel Area in accordance with IEPA permit 1991-152-LFM (log 1994-011) condition VI.7. As-builts and pumping rates of the leachate extraction trench were previously submitted.

If you have any questions, please call me at (618) 271-6788.

Sincerely,  
Waste Management of Illinois, Inc.

Ernest H Dennison, PE  
Environmental Engineer

cc: Mr. Ken Mensing - IEPA

**FINAL REPORT FOR:**

**BARREL AREA REMEDIATION PROJECT  
WASTE MANAGEMENT OF ILLINOIS, INC.  
MILAM RECYCLING AND DISPOSAL FACILITY  
FAIRMONT CITY, ILLINIOS  
VOLUME I**

**Submitted to:**

**Ernest H. Dennison  
Milam Recycling and Disposal Facility  
I-55 and Illinois 203 North  
Fairmount City, Illinois 62201  
June 24, 1994**

---

**Submitted by:**

**RUST**

**RUST Remedial Services, Inc.  
7250 West College Drive  
Palos Heights, Illinois 60463**



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**VIII. PERSONNEL**

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**ATTACHMENT F MANIFEST COPIES**

## **I. Project Purpose**

- A. In order to improve the groundwater quality in the vicinity of groundwater monitoring wells G005, G006, G06D, G18D, and G18S, it was agreed upon by Waste Management of Illinois, Inc., Milam Recycling and Disposal Facility (Milam) and the Illinois Environmental Protection Agency, Division of Land Pollution Control (IEPA) that two specific magnetic anomalies adjacent to the above mentioned wells would be excavated for the removal of potentially hazardous drummed waste. Additionally, all excavated waste was to be tested, managed, and disposed in accordance with the approved work plans and the conditions of Milam's operating permit as well as applicable federal, state, and local regulations.

## **II. Executive Summary**

- A. Project planning, negotiation, and implementation began in May of 1993. Mobilization and site setup began on August 11 and was completed by September 1. Three waste staging pads (SP1, SP2, and SP3) were constructed during the remedial activities. The three containment pads provided approximately 50,000 square feet for waste storage and handling.

Excavation of drums began on September 21. Analytical difficulties due to the discovery of non-reactive sulfides and PCB's caused delays in the assignment of final fingerprint classifications needed to perform consolidation of compatible wastes. Excavation was completed on February 25. A total of 3,254 waste-bearing drums and 253 RCRA empty drums were removed from approximately 5,400 cubic yards of soil, trash, and debris comprising the two excavation areas. Most of the recovered drums were in very poor condition. The majority were crushed to less than 80 % of their original capacity. Upon completion of both areas, approximately 18 inches of clay was placed over both excavations to prevent the infiltration of surface water.

Consolidation of drummed compatible wastes began on November 4, 1993. All drummed waste had been consolidated by March 18, 1994. A total of 3,254 waste-bearing drums and 51 trough waste drums were consolidated into compatible groups. All consolidation operations were performed in SP1. All RCRA and/or TSCA regulated wastes were shipped off site for disposal by June 27, 1994.

**BARREL AREA REMEDIATION PROJECT**  
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**III. Work Area Description**

- A. The southern-most magnetic anomaly, herein referred to as Area A, is bound by Grid Lines 23700 and 23800 North and 72200 and 72300 East. Area A is adjacent to groundwater monitoring wells G006 and G06D. Approximately 3,800 cubic yards of material were excavated in Area A.
- B. The northern-most magnetic anomaly, herein referred to as Area B, is bound by grid lines 24050 and 24135 North and 71975 and 72025 East. Area B is adjacent to groundwater monitoring wells G18D and G18S. Approximately 1,600 cubic yards of material were excavated in Area B.
- C. Over the course of the project three waste staging pads were constructed for the storage and management of excavated and generated wastes. These containment pads are herein referred to as SP1, SP2, and SP3. Additionally, a storage trailer adjacent to SP1 was utilized for the storage of PCB's for greater than 30 days.
- D. A support area consisting of an office trailer, break/safety trailer, and a personnel decontamination trailer was also constructed.
- E. Attachment A is site drawing indicating the general location of these work areas.

**IV. Work Activities**

- A. Mobilization
  - 1. Project planning, negotiation, and implementation began in May of 1993. Mobilization and site setup began on August 11 and was completed by September 1. IEPA approval of the Drum Removal Plan was received on September 7. Actual excavation was delayed until September 17 since most team members had been reassigned while plan approval was pending.

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**B. Construction**

1. Three waste staging pads (SP1, SP2, and SP3) were constructed during the remedial activities. The three containment pads provided approximately 50,000 square feet for waste storage and handling. All were constructed of clay berms and base, 60 mil HDPE liner protected by 11 ounce geotextile, and at least 8 inches of aggregate work surface. The waste staging pads were constructed in the northeast area of the facility.
2. A PCB storage facility was constructed adjacent to SP1. The facility was constructed of a 40 foot cargo trailer with 60 mil HDPE placed inside to form the necessary containment. The PCB storage facility was utilized for the storage of TSCA regulated materials for greater than 30 days. It was constructed and maintained in compliance with 40CFR761.65.
3. A road was constructed from the facility's north access road extending south to Area A. The road was constructed of one foot of aggregate over a geotextile.
4. A support area was constructed along the north access road. The support area was comprised of an office trailer, a break and safety trailer, and a personnel decontamination trailer. Since a sufficient electrical service was not available, two of the trailers were powered by a 60 kW generator.

**C. Excavation**

1. A Komatsu PC-220 excavator and a Komatsu PC-150 excavator with a barrel handling attachment were used to excavate, handle, overpack, and load the drums. A stakebed truck was utilized to transport the overpacked drums, empty drums, and generated wastes to the waste staging pads.

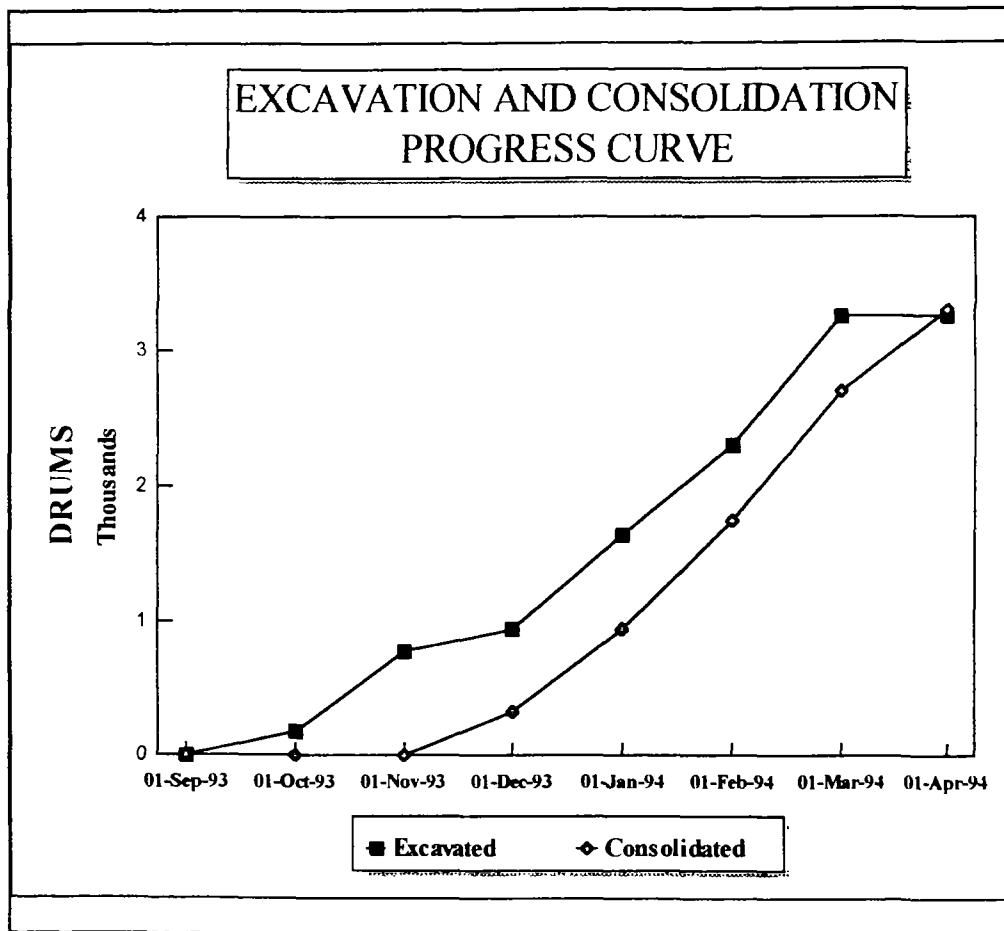
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2. Excavation of drums from Area A began on September 21. Excavation was temporarily suspended on October 27 due to a lack of storage space caused by delays in drum consolidation. Analytical difficulties due to the discovery of non-reactive sulfides and PCB's caused delays in the assignment of final fingerprint classifications needed to perform consolidation of compatible wastes. Excavation was resumed on November 29 and continued through December 20 when it was suspended due to the holidays. Excavation of Area A resumed on January 3, 1994 and was completed on February 17. A total of 3,024 waste-bearing drums and 191 RCRA empty drums were removed from approximately 3,800 cubic yards of soil, trash, and debris comprising the Area A excavation.
3. Excavation of Area B began on February 21 and was completed on February 25. A total of 230 waste-bearing drums and 62 RCRA empty drums were removed from approximately 1,600 cubic yards of soil, trash, and debris comprising the Area B excavation. Most of the recovered drums were in very poor condition. The majority were crushed to less than 70 % of their original capacity.
4. Upon completion of both areas, approximately 18 inches of clay was placed over both excavations to prevent the infiltration of surface water. Both caps were seeded and strawed as well.

D. Consolidation

1. A Komatsu PC-150 excavator with a drum crusher attachment and two Bobcat 753 loaders with barrel handling attachments were used in the consolidation and container management operations.
2. Consolidation of drummed compatible wastes began on November 4, 1993. All drummed waste had been consolidated by March 18, 1994. A total of 3,254 waste-bearing drums and 51 trough waste drums were consolidated into compatible groups. All consolidation operations were performed in SP1.
3. The following figure depicts the progress of both excavation and consolidation activities.

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**E. Stormwater Management**

1. Stormwater management in the waste staging area began on September 21, 1993 when the first potentially hazardous waste containers were placed for storage. On June 27, 1994, all waste containers had been removed. During that period, 340,000 gallons of stormwater was collected from the staging pads, tested for compliance with Milam's permit to discharge to the Granite City Regional Wastewater Treatment Plant (GCRWTP), and discharged to the leachate collection system. Testing and discharge has been performed on a 20,000 gallon batch basis. All batches have met the discharge requirements.

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2. In addition to the batch-discharged stormwater, approximately 250,000 gallons of stormwater was discharged directly from SP2 and SP3 to the leachate collection system to relieve concerns caused by excessive precipitation. The decision was based on previous analytical data for the stormwater collected from SP2 and SP3 as well as the lack of previous potentially hazardous spills.
3. Stormwater management was discontinued on April 28, 1994 for SP2 and SP3. The decision was made based upon past analytical data for stormwater, the lack of previous potentially hazardous spills, analytical results for aggregate samples collected from the pads, and the fact that waste containers were no longer stored on these pads.
4. On April 29, 1994, the decision was made to begin sampling the stormwater from SP1 on a per-discharge-event basis rather than the per-batch basis. This decision was made based on previous analytical data for the stormwater collected from SP1 as well as the lack of previous potentially hazardous spills. Approximately 40,000 gallons of stormwater were discharged from SP1 under this system. Stormwater management was discontinued on June 28, 1994 when all waste containers had been removed. A composite sample was collected from SP1 to verify the aggregate work surface as non-hazardous.
5. Attachment B is the Stormwater Sampling, Discharge, and Status Log as well as analytical reports and Chain-of-Custody forms.

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**F. Drum Washing**

1. In order to reduce costs and the volume of waste generated during these operations, used overpack drums were pressure washed for reuse. Drums that did not pass the post wash inspection due to damage were crushed and handled as RCRA empty. Crushed overpacks which previously contained TSCA material were disposed as TSCA regulated waste. The washwater was collected stormwater. The first batch was tested and discharged to the leachate collection system. The second batch was recycled through the remainder of the operation. Compliance with Milam's GCRWTP permit was analytically verified prior to discharge. Sampling and discharge information can be found in Attachment B.

**V. Waste Sampling**

- A. The sampling team collected samples from 3,254 waste-bearing drums and fifty-one (51) trough waste drums totalling 3,305 drums sampled (trough waste is defined in Daily Log Report Number 0016). These samples were tested for physical characteristics as well as PCB's. The breakdown of these drums by compatibility classification is shown in Table 1.
- B. Attachment C is a report containing the observation, analytical, and consolidation information for each individual drum. Analytical reports are on file.
- C. Twenty-two (22) composite samples were collected from consolidated wastes and generated wastes for TCLP analysis. Analytical reports can be found in Attachment E.
- D. Twenty (20) samples were collected from stormwater and drum-wash water batches and analyzed to verify compliance with Milam's GCRWTP permit. Analytical reports are located in Attachment B.



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**TABLE 1**

COMPATIBILITY CLASSIFICATION	NUMBER OF DRUMS	PERCENTAGE OF TOTAL DRUMS
Flammable Liquid	408	12.3
Flammable Liquid/PCB	129	3.9
Flammable Solid	1,427	43.2
Flammable Solid/PCB	715	21.6
Flammable Solid/PCB > 500 ppm	3	0.1
Inert Liquid	204	6.2
Inert Liquid/PCB	1	****
Inert Solid	412	12.5
Inert Solid/PCB	4	0.1
Flammable Liquid/Acid Liquid	1	****
Flammable Liquid/Base Liquid	1	****
TOTAL DRUMS SAMPLED	3,305	

Note: "Inert" only indicates that the sample did not display any characteristics of ignitability, corrosivity, or reactivity; the "Liquid" designation indicates that the sample contained some free liquid; \*\*\*\* indicates a value of less than 0.1%.

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**VI. Waste Disposition**

- A. Attachment D is a report of consolidated and generated wastes disposed during the project. Copies of the associated manifests are located in Attachment F of this report.
- B. Wastes with Waste Profile Number MW 18163 (non-TSCA, RCRA empty drums) were disposed in the active area of the Milam facility. Disposal locations were surveyed and the coordinates are on file. The general disposal location can be found on Attachment A.
- C. Secondary disposal containers (disposal numbers MRD-2XXX) held liquid wastes which were decanted from drums classified as Flammable Liquids(D001).

**VII. Weather Conditions**

- A. Approximately 25 inches of precipitation was recorded between September 21, 1993 and May 14, 1994. Although some production was lost due to precipitation and/or extreme cold, weather conditions did not significantly affect the project schedule.

**VIII. Personnel**

- A. The number and type of personnel comprising the project team varied over the course of the project based upon tasks and personnel availability.
- B. The optimal team for the excavation, sampling, overpacking, and transportation of overpacked drums and generated waste to the staging area is as follows:
  - 1 Chemist
  - 2 Equipment Operators
  - 4 Field Technicians

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- C. The optimal team for the consolidation of drums, management of waste, and drum washing operations is as follows:

2	Equipment Operators
3	Field Technicians

- D. The optimal management, supervision, and safety team is as follows:

1	Project Manager
1	Project Coordinator
1	Site Safety Officer
1	Site Administrator

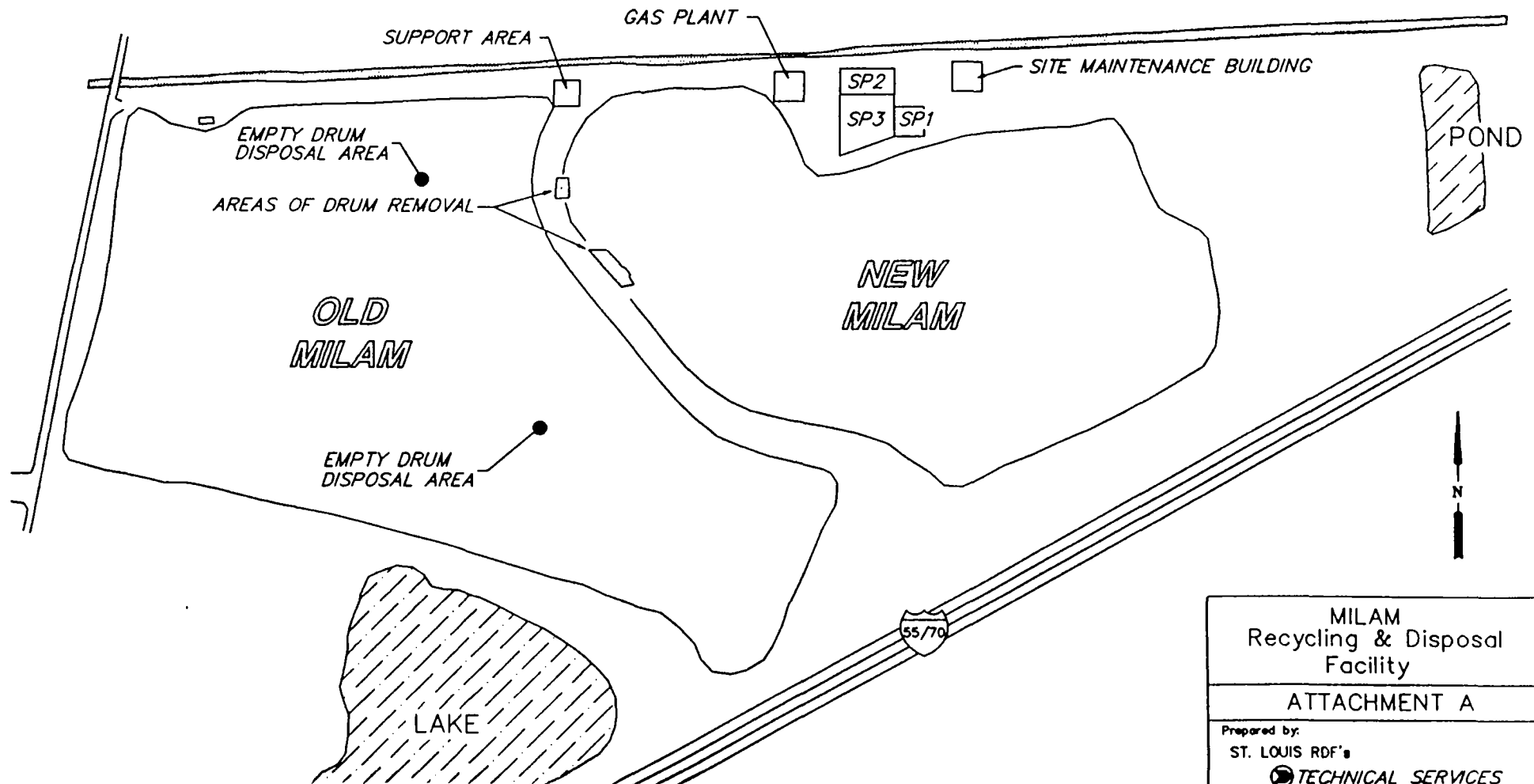
**IX. Spill Summary**

- A. Throughout the course of the project, fifty-one (51) 85 gallon drums of trough waste were generated from the drummed wastes that were spilled into the sampling trough.
- B. Wastes spilled were limited to the contaminant control measures and the excavation. All contaminant control measures were removed upon the completion of the project or as necessary and decontaminated or disposed in accordance with applicable regulations.

**X. Recommendations for Continued Monitoring**

- A. Milam proposes to continue monitoring the five groundwater monitoring wells (G005, G006, G06D, G18D, and G18S) located in the vicinity of the Barrel Remediation Area in accordance with IEPA permit 1991-152-LFM. When development/filling operations progress into this area, the wells will either be extended if monitoring indicates the presence of volatile organics or decommissioned if volatile organics are no longer detected.

# BARREL AREA REMEDIATION PROJECT FINAL REPORT



MILAM  
Recycling & Disposal  
Facility

ATTACHMENT A

Prepared by:

ST. LOUIS RDF's

TECHNICAL SERVICES

APPENDIX E.  
ILLINOIS EPA SAMPLE PHOTOGRAPHS

Date: 6/27/00

Time: 10:00 am

Photo Taken By: Mark Wagner

Site Name/ILD#/LPC

SCA MILAM

ILT 180014961 / 1630450001

Sample Location: X209

Direction: northeast

Description: down stream sample on  
Cahokia Canal, near gas plant



Date: 6/27/00

Time: 10:00 am

Photo Taken By: Mark Wagner

Site Name/ILD#/LPC

SCA MILAM

ILT 180014961 / 1630450001

Sample Location: X209

Direction: north

Description: down stream sample on  
Cahokia Canal, near gas plant





Date: 6/27/00

Time: 9:45 am

Photo Taken By: Mark Wagner

Site Name/ILD#/LPC

SCA MILAM

ILT 180014961 / 1630450001

Sample Location: X208

Direction: north

Description: down stream sample on  
Cahokia Canal



Date: 6/27/00

Time: 9:45 am

Photo Taken By: Mark Wagner

Site Name/ILD#/LPC

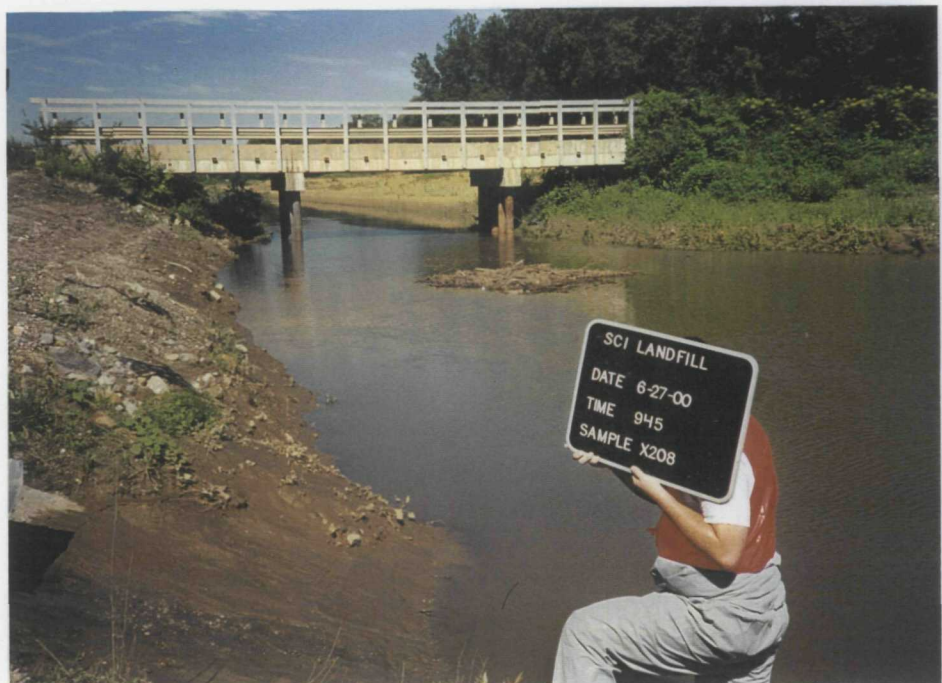
SCA MILAM

ILT 180014961 / 1630450001

Sample Location: X208

Direction: south

Description: down stream sample on  
Cahokia Canal



Date: 6/27/00

Time: 10:45 am

Photo Taken By: Mark Wagner

Site Name/ILD#/LPC

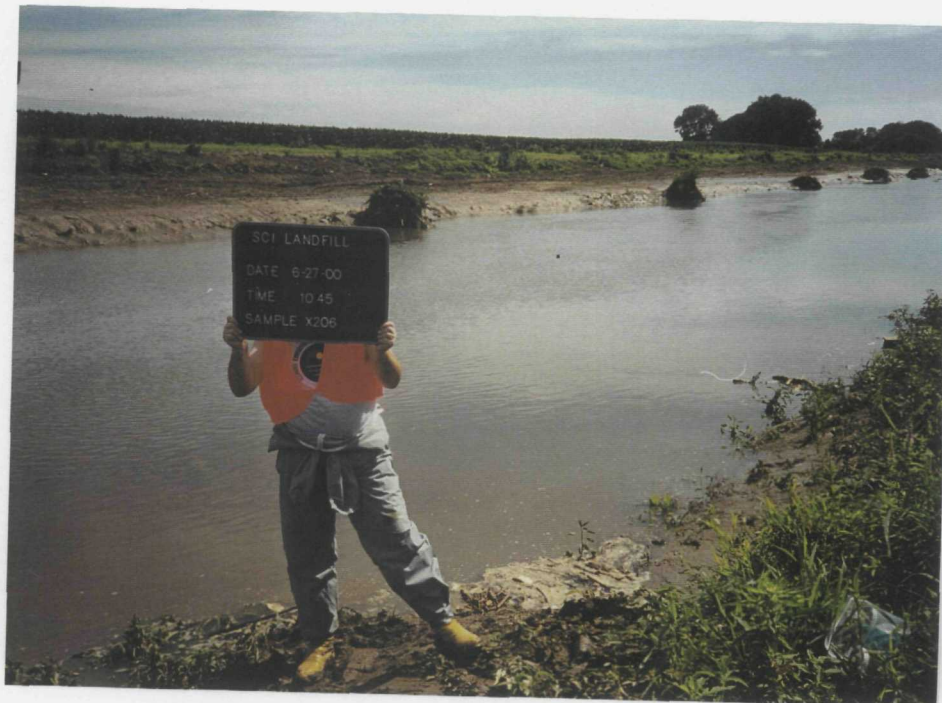
SCA MILAM

ILT 180014961 / 1630450001

Sample Location: X206

Direction: northeast

Description: near PPE to Cahokia Canal



Date: 6/27/00

Time: 10:45 am

Photo Taken By: Mark Wagner

Site Name/ILD#/LPC

SCA MILAM

ILT 180014961 / 1630450001

Sample Location: X206

Direction: north

Description: near PPE to Cahokia Canal





Date: 6/27/00

Time: 11:00 am

Photo Taken By: Mark Wagner

Site Name/ILD#/LPC

SCA MILAM

ILT 180014961 / 1630450001

Sample Location: X207

Direction: northeast

Description: at PPE to  
Cahokia Canal



Date: 6/27/00

Time: 11:00 am

Photo Taken By: Mark Wagner

Site Name/ILD#/LPC

SCA MILAM

ILT 180014961 / 1630450001

Sample Location: X207

Direction: north

Description: at PPE to  
Cahokia Canal



Date: 6/27/00

Time: 11:30 am

Photo Taken By: Mark Wagner

Site Name/ILD#/LPC

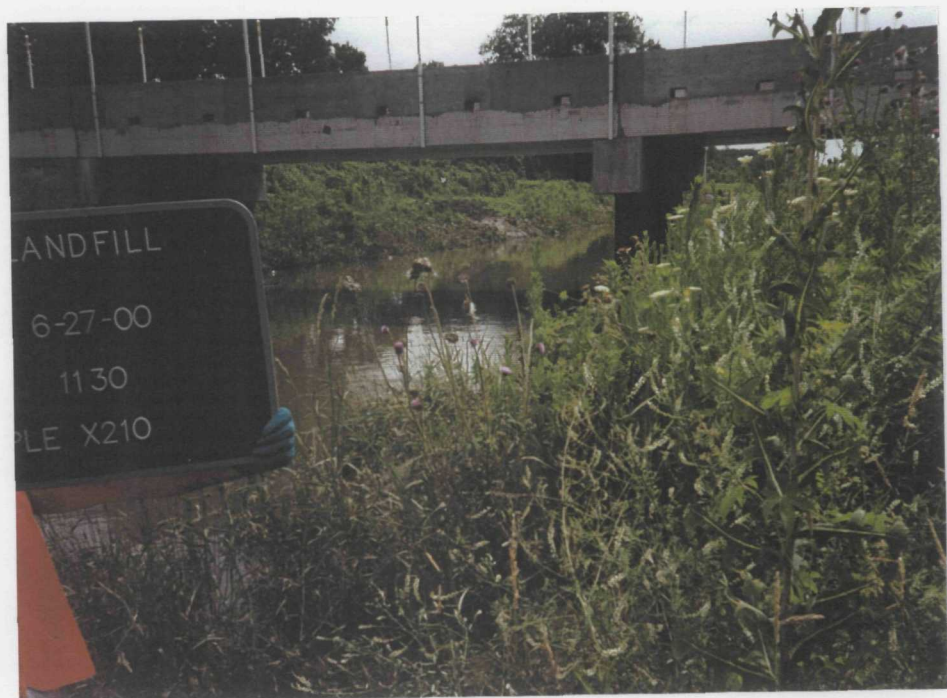
SCA MILAM

ILT 180014961 / 1630450001

Sample Location: X210

Direction: northeast

Description: up-stream on  
Cahokia Canal



Date: 6/27/00

Time: 11:30 am

Photo Taken By: Mark Wagner

Site Name/ILD#/LPC

SCA MILAM

ILT 180014961 / 1630450001

Sample Location: X210

Direction: north

Description: up-stream on  
Cahokia Canal





Date: 6/27/00

Time: 13:00 pm

Photo Taken By: Mark Wagner

Site Name/ILD#/LPC

SCA MILAM

ILT 180014961 / 1630450001

Sample Location: X202/X203

Direction: north

Description: northeast drainage on to site



Date: 6/27/00

Time: 13:00 pm

Photo Taken By: Mark Wagner

Site Name/ILD#/LPC

SCA MILAM

ILT 180014961 / 1630450001

Sample Location: X202/X203

Direction: south

Description: northeast drainage on to site



Date: 6/27/00

Time: 13:30 pm

Photo Taken By: Mark Wagner

Site Name/ILD#/LPC

SCA MILAM

ILT 180014961 / 1630450001

Sample Location: X204

Direction: northeast

Description: east drainage on to site



Date: 6/27/00

Time: 13:30 pm

Photo Taken By: Mark Wagner

Site Name/ILD#/LPC

SCA MILAM

ILT 180014961 / 1630450001

Sample Location: X204

Direction: south

Description: east drainage on to site

